# REMARKS AND ARGUMENTS

The Applicant respectfully requests reconsideration of the application in view of the foregoing amendments, and further in view of the following comments, in which each outstanding objection and claim rejection is addressed.

## A. Objections

Claims 1 and 11 were objected to because of typographical errors. Namely, the word "of" in the first line of each claim should read "for." The foregoing amendments have corrected these errors.

## B. Rejections under § 101

Claims 14 and 15 were rejected under 35 U.S.C. § 101 as being non-statutory. Claim 14 has been amended. Claim 14 now recites a computer system with the special-purpose functionality recited in that claim. Because it claims a computer system, claim 14 is believed to be directed to statutory subject matter under § 101, and the applicant requests withdrawal of the rejection. Because claim 15 has been canceled, the rejection thereof is moot.

## C. Rejections under § 102

Claims 1-16 were examined in the application. Of these, claims 4, 15, and 16 have been canceled. New claims 17-23 have been added.

Claims 1-16 were rejected under 35 U.S.C. § 102(b) as being anticipated by M. Brandl et al., "High Speed Signal Processing with Tapped Dispersive SAW based Delay Lines" (hereinafter "Brandl"). The applicant respectfully submits that pending claims 1-3, 5-14, and 17-23 as amended are not anticipated by Brandl.

Claims 1, 11, and 14 are independent. Each of these independent claims recites systems or methods that make use of a "matrix representation" of a radio frequency signal. The radio frequency signal represented by the matrix is "substantially zero between a plurality of frequency bands," and "the matrix is formed of a plurality of pieces, each piece representing a frequency band." These features are not disclosed in Brandl.

First, Brandl does not disclose a representation in which a matrix represents a radio frequency signal that is substantially zero between a plurality of frequency bands. For example, Fig. 3 of Brandl illustrates substantially non-zero signals within a single frequency band, extending from about 300MHz to about 400MHz. Signals outside of that single frequency band are relatively low-strength signals resulting from noise and other factors, and are substantially zero. However, Brandl does not disclose a plurality of frequency bands between which the signal is substantially zero.

Second, Brandl does not disclose a matrix that is formed of a plurality of pieces, in which each piece represents a frequency band. Even if, as implied in the Office Action (see page 6), Brandl's function "g(t)" is considered to be a vector, there is no disclosure in Brandl that this function is formed of a plurality of pieces that represent a frequency bands. To the contrary, Brandl's "g(t)" is a single-valued function of time.

For the foregoing reasons, independent claims 1, 11, and 14 are not anticipated by Brandl. All the remaining pending claims depend from one of these and distinguish over Brandl for at least the reasons given with respect to the independent claims.


**D. Conclusion**

Pending claims 1-3, 5-14, and 17-23 are believed to be in a condition for allowance. Early notice to that effect is earnestly solicited. If the examiner believes that any issue may best be resolved or clarified by telephone, the examiner is invited to telephone the applicant's undersigned representative at 312-913-2115.


Respectfully Submitted,

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